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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/816,939

04/05/2004

Fred Buchali

Q80563

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72875

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03/19/2009

SUGHRUE MION, PLLC

2100 Pennsylvania Avenue, N.W.

Washington, DC 20037

EXAMINER

TRAN, DZUNG D

ART UNIT

PAPER NUMBER

2613

NOTIFICATION DATE

DELIVERY MODE

03/19/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com

kghyndman@sughrue.com

USPatDocketing@sughrue.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/816,939	<b>Applicant(s)</b> BUCHALI, FRED	
	<b>Examiner</b> Dzung D. Tran	<b>Art Unit</b> 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. The amendment filed 12/22/2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

The amended on Specification pages 5 and 6 and Drawing, Figure 4 introduces new matter into the disclosure.

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "a computer readable medium" and its connection with the present invention apparatus must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

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changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 8 claimed "a computer readable medium encoded with a computer program for generating a clock signal out of an electrical data signal". However, the specification and drawing do not provide any specific detail to teach "a computer readable medium encoded with a computer program for generating a clock signal out of an electrical data signal" and how a computer readable medium encoded with a

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computer program generates a clock signal, specially the connection between the computer readable medium and the present invention apparatus. Without such detail description, the disclosure does not enable a person of ordinary to made and use the claimed invention.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pathak et al. US 7,158,727 in view of LaGasse et al. US Publication no. 2003/0020985.

Regarding claim 1, Pathak discloses in Figure 1, a receiver device for optical data signals, in particular optical data signal in the Gb/s range, comprising:

an opto-electrical conversion unit 101, which converts an optical signal, that is received from a source external to said receiver device, to a converted electric data signal, that is received from a source external to said receiver device, to a converted electrical data signal;

a frequency multiplier unit which frequency-multiplies the converted electrical data signal (col. 3, lines 7-16); and

a clock recovery unit 103;

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wherein the frequency multiplied signal is use to drive the phase locked loop circuit (col. 3, lines 7-16);

wherein the frequency multiplier unit performs a frequency multiplication by a factor of  $n$ , with  $n$  being a natural number larger than 2 (i.e.,  $n = 4$ );

wherein the receiver device comprises a frequency filter for the spectral power of the electrical data signal, and wherein the frequency filter transmits around  $B/n$ , wherein  $B$  is the bit rate of the electrical data signal (i.e., the 1:4 demultiplexer filtering or separating the clock signal 110 from 1-Bit stream data signal) and

wherein said frequency multiplication is an analog signal processing technique (col. 3, lines 7-16).

Pathak does not specifically disclose wherein the clock recovery unit 103 comprising a phased locked loop circuit. LaGasse, from the same field of endeavor, discloses in Figure 3 a clock recovery unit 150 comprising a phased locked loop circuit 154 (see Paragraph 0064). At the time of the invention was made, it would have been obvious to an artisan to replace the clock recovery unit 103 of Pathak with the well known clock recovery unit 150 that comprising a phased locked loop circuit 154 taught by LaGasse. One of ordinary skill in the art would have been motivated to do that in order to generate a clock signal that is synchronized to the data signal. Furthermore, Pathak discloses in col. 3, lines 7-16 clock recovery circuit having an analog phase-locked loop (APLL) with multiple phase outputs; parallel-to-serial conversion blocks; output buffers with programmable output voltage swings; control logic for selecting frequency multiplication ratio and output phases.

Regarding claim 3, Pathak discloses in Figure 1, wherein  $n = 4$ .

Regarding claim 4, Pathak discloses the optical data signal are 10 Gb/s or 40 Gb/s signal (col. 2, Table 1; col. 5, lines 35-52).

Regarding claim 5, Pathak discloses the clock recovery unit comprises a phase locked loop circuit (col. 5, lines 58-67).

Regarding claim 7, Pathak discloses the data transmission system comprises an optical transmission link 100, wherein transmission link has a significant dispersion (it is inherently that dispersion occurs in the optical fiber system).

Regarding claim 8, as far as Examiner understood, Pathak discloses a ASIC processor which can be used to run a program (see figure 3).

### ***Response to Arguments***

7. Applicant's arguments filed on 12/22/2008 have been fully considered but they are not persuasive.

**A) Claims 1, 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pathak et al. US 7,158,727 in view of LaGasse et al. US Publication no. 2003/0020985.**

Applicant argues that Pathak does not disclose the newly added limitation “wherein said frequency multiplication is an analog signal processing technique”. Examiner respectfully disagreed, as the rejection of claim 1 above, Pathak discloses in col. 3, lines 7-16 clock recovery circuit having an analog phase-locked loop (APLL) with

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multiple phase outputs; parallel-to-serial conversion blocks; output buffers with programmable output voltage swings; control logic for selecting frequency multiplication ratio and output phases.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dzung Tran  
03/14/2009



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/Dzung D Tran/

Primary Examiner, Art Unit 2613